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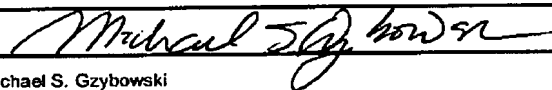
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Application Number	09/837,020
Filing Date	April 18, 2001
First Named Inventor	Yasushi KOHNO et al.
Art Unit	3843
Examiner Name	Andrea Valentini
Attorney Docket Number	121056-0009

**ENCLOSURES (Check all that apply)**

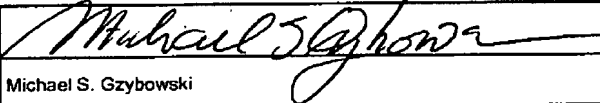
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**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

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Printed name	Michael S. Gzybowski
Date	October 3, 2007
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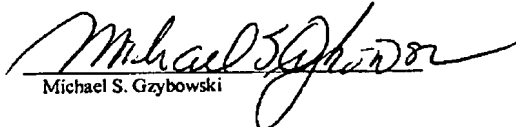
Appl. No. 09/837,020

PATENT APPLICATION*IN THE UNITED STATES PATENT AND TRADEMARK OFFICE*

*Group*  
*Art Unit:* 3643  
  
*Attorney*  
*Docket No.:* 121056-009  
  
*Applicant:* Yasushi KOHNO et al.  
  
*Invention:* METHOD OF PREVENTING DEFECTIVE  
GERMINATION OR GROWTH OF PLANT  
  
*Serial No:* 09/837,020  
  
*Filed:* April 18, 2001  
  
*Examiner:* Andrea Valenti

Certificate Under 37 CFR 1.8(a)

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on October 3, 2007  
Michael S. GzybowskiREPLY BRIEF

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Examiner's Answer mailed August 3, 2007 in connection with the above-identified application appellants submit the present Reply Brief.

In the paragraph bridging pages 5 and 6 of the Examiner's Answer the Examiner states:

Applicant also argues that the coating compositions of Hinkes and Carlson are not functional equivalents, but it is the examiner's position that Hinkes and Carlson [sic] are teachings of general knowledge in the art of plant husbandry to coat a seed with an aqueous gel to enhance germination and to pelletize a seed that has an aqueous gel coat to utilize mechanical planting equipment i.e. combining the prior art elements according to known methods to yield known results.

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First it needs to be pointed out that in the Final rejection the Examiner has taken the position that:

It would have been obvious.... to modify the teachings of Hinkes with the teachings of Carlson at the time of the invention since the modification is merely the selection of an alternate seed coat selected for its known advantage of improving germination as taught by Carlson. (underlining added)

The reference to the seed coating material of Carlson et al. being an alternative to the seed coating of Hinkes is believed to require that the Examiner establish that the seed coatings are either equivalent or that substituting the seed coating of Carlson et al. for that of Hinkes would not adversely effect Hinkes.

This latter position is governed by the Board of Patent Appeals' holding in *Ex parte Hartmann*:

References cannot properly be combined if effect would destroy invention on which one of reference patents is based. (*Ex parte Hartmann*, 186 USPQ 366 (PTO Bd App 1974))

In order to establish equivalents for purposes of substituting the seed coating of Carlson et al. for that of Hinkes, the Examiner is required to show that the equivalents is an "art recognized" equivalents. That means the Examiner must show that the prior art teaches the equivalents that is being relied upon. (See MPEP §2144.06)

A close review of Hinkes and Carlson et al. reveals that: 1) the seed coatings of Hinkes and Carlson et al. are not art recognized equivalents; and 2) modifying Hinkes to have the seed coatings of Carlson et al. would destroy or, at the very least, adversely effect Hinkes to the extend that the modification would not be obvious.

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Hinkes clearly teaches a seed coating that is formulated to open and break away from the seed when exposed to water.

More specifically, Hinkes teaches a seed coating composition:

...wherein the admixed materials have different swelling rates, so that when the dried coating is exposed to the moisture of the seed bed, there is a gradual swelling of the coating over a period of time, and this swelling continues after the hydration of the fastest swelling ingredient. The component having the slower rate of hydration continues to act as a binder during the hydration and swelling of the faster swelling component. This interplay of the forces generated causes one component to expand whereas the other component restrains the coating to insure that the coating will open or expand much like the opening of petals of a flower and then will fall away from the seed rather than merely swelling and staying in place.

Hinkes teaches the following compositions:

<u>Ingredient</u>	<u>Preferred Wt. %</u>	<u>Most Preferred Wt. %</u>
Silica	50 - 80	53 - 60
Montmorillonite	5 - 30	7 - 20
Attapulgate	10 - 45	20 - 40

Carlson et al. teaches:

Candidate gel solutes include, but are not limited to, the following: sodium alginate, agar, agarose, amylose, pectin, dextran, gelatin, starch, amylopectin, modified celluloses such as methylcellulose and hydroxyethylcellulose, and polyacrylamide.

As can be seen, Carlson et al. fails to teach silica or any of the known swelling clays (montmorillonite and attapulgate) of Hinkes.

Accordingly, it can be concluded that: 1) the "hydrated" gel coating of Carlson et al. is not an

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art recognized equivalent to the coatings of Hinkes; and 2) the "hydrated" gel coating of Carlson et al. are not formulated to contain materials that swell at different rates so as to cause the coatings to "break away from the seed when exposed to water" (Note: the coating are hydrated to start with). Therefore, modifying Hinkes to have the seed coatings of Carlson et al. would destroy or, at the very least, adversely effect Hinkes to the extend that the modification would not be obvious.


#### CONCLUSION

For the reasons advanced above and in appellants' Brief on Appeal, appellants respectfully contend that the rejections of claims 1, 3, 7, 13, 15 and 16 under 35 U.S.C §103(a) as being unpatentable over Hinkes in view of Carlson et al. improper as the examiner has not met his burden of establishing a prima facie case of obviousness of appellants' claimed invention.

Reversal of the outstanding rejection on appeal is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,



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